

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
**(Under 37 CFR 1.97(b) or 1.97(c))**

Docket No.  
**RLL-256.2CIPUS**

In Re Application Of: **SALMAN et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
<b>10/552,503</b>		<b>Unknown</b>	<b>26,815</b>	<b>Unknown</b>	<b>2262</b>

Title: **AZABICYCLO DERIVATIVES AS MUSCARINIC RECEPTOR ANTAGONISTS**

Address to:  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, VA 22313-1450**

**37 CFR 1.97(b)**

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

**37 CFR 1.97(c)**

2. ☐ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:
- ☐ the statement specified in 37 CFR 1.97(e);
- OR**
- ☐ the fee set forth in 37 CFR 1.17(p).

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**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. 50-0912  
as described below.
- ☐ Charge the amount of \_\_\_\_\_
- ☐ Credit any overpayment.
- ☒ Charge any additional fee required.
- ☐ Payment by credit card. Form PTO-2038 is attached.

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George E. Heibel, Esq.  
Reg. No. 42,648

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June 8, 2006

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(Date)

  
Signature of Person Mailing Correspondence

Michelle Morgan

\_\_\_\_\_  
Typed or Printed Name of Person Mailing Certificate

Dated: June 8, 2006

<b>INFORMATION DISCLOSURE CITATION</b>	Docket No.: RLL-256.2CIPUS	Serial No.: 10/552,503
	Applicants: SALMAN <i>et al.</i>	
	Filed: 10/7/2005	Group:

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/G.S./	A1	2,490,714	12/6/1949	Searle	260	239	
	A2	3,176,019	3/30/1965	Campbell <i>et al.</i>	260	293.4	
	A3	5,001,160	3/19/1991	McPherson <i>et al.</i>	514	255	
	A4	5,164,402	11/17/1992	Brighty	514	300	
	A5	5,281,601	1/25/1994	Cross <i>et al.</i>	514	320	
	A6	5,397,800	3/14/1995	Alker <i>et al.</i>	514	413	
	A7	5,948,792	9/7/1999	Tsuchiya <i>et al.</i>	514	317	
	A8	6,130,232	10/10/2000	Mase <i>et al.</i>	514	318	
	A9	6,174,900	1/16/2001	Okada <i>et al.</i>	514	317	
	A10	6,313,312	11/6/2001	Banks <i>et al.</i>	548	452	

FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES   NO
/G.S./	B1	CA 2155320	8/19/1993	Canada	C07D	211/68	
	B2	EP 0 325 571	7/26/1989	EPO	C07C	215/54	
	B3	EP 0 388 054	9/19/1990	EPO	C07D	207/08	
	B4	EP 0 413 455	2/20/1991	EPO	C07D	401/04	
	B5	EP 0 613 232	8/31/1994	EPO	H02M	3/335	
	B6	EP 0 801 067	10/15/1997	EPO	C07D	453/02	
	B7	EP 0 823 423	2/11/1998	EPO	C07D	211/46	
	B8	EP 0 863 141	9/9/1998	EPO	C07D	401/06	
	B9	GB 940,540	10/30/1963	UK	C07C		
	B10	JP 135958/1994	5/17/1994	Japan	C07D	333/16	
	B11	JP 92921/1994	4/5/1994	Japan	C07C	237/20	

EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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Filed: 10/7/2005

Group:

/G.S./	B12	WO 91/09013	6/27/1991	PCT	C07D	207/08		
	B13	WO 93/16018	8/19/1993	PCT	C05F	17/02		
	B14	WO 93/16048	8/19/1993	PCT	C07D	211/26		
	B15	WO 96/33973	10/31/1996	PCT	C07D	211/46		
	B16	WO 97/45414	12/4/1997	PCT	C07D	211/58		
	B17	WO 98/05641	2/12/1998	PCT	C07D	211/46		
	B18	WO 98/29402	7/9/1998	PCT	C07D	311/20		
	B19	WO 98/53814	12/3/1998	PCT	A61K	31/395		
	B20	WO 01/42212	6/14/2001	PCT	C07D	211/48		
	B21	WO 01/42213	6/14/2001	PCT	C07D	211/58		
	B22	WO 01/90081	11/29/2001	PCT	C07D	241/08		
	B23	WO 02/00652	1/3/2002	PCT	C07D	453/02		
	B24	WO 02/04402	1/17/2002	PCT	C07C	219/10		
	B25	WO 02/51841	7/4/2002	PCT	C07D	453/02		
	B26	WO 02/06241	1/24/2002	PCT	C07D	223/16		
	B27	WO 02/53564	7/11/2002	PCT	C07D	453/02		
	B28	WO 04/004629	1/15/2004	PCT	A61K			
	B29	WO 04/005252	1/15/2004	PCT	C07D	209/52		
	B30	WO 04/014363	2/19/2004	PCT	A61K	31/40		
	B31	WO 04/014853	2/19/2004	PCT	C07D	209/02		
	B32	WO 04/018422	3/4/2004	PCT	C07D	209/52		
	B33	WO 04/052857	6/24/2004	PCT	C07D	209/52		
	B34	WO 04/056767	7/8/2004	PCT	C07D	207/14		
	B35	WO 04/056810	7/8/2004	PCT	C07D	405/12		
	B36	WO 04/056811	7/8/2004	PCT	C07D	405/12		
	B37	WO 04/089900	10/21/2004	PCT	C07D	209/52		
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**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

/G.S./	C1	de Groat and Yoshimura, "Pharmacology of the Lower Urinary Tract", <i>Annual Review of Pharmacology and Toxicology</i> , 41:691-721 (2001)
	C2	Cheng and Prusoff, "Relationship between the inhibition constant ( $K_1$ ) and the concentration of inhibitor which causes 50 per cent inhibition ( $I_{50}$ ) of an enzymatic reaction", <i>Biochemical Pharmacology</i> , 22:3099-3108 (1973)
	C3	Birdsall et al., "Muscarinic receptors: it's a knockout", <i>Trends in Pharmacological Sciences</i> , 22(5):215-219 (2001)
	C4	Brighty et al., "Synthesis of (1 $\alpha$ ,5 $\alpha$ ,6 $\alpha$ )-6-Amino-3-azabicyclo[3.1.0]hexane, a Novel Achiral Diamine", <i>Synlett</i> , 1097-1099 (1996)
	C5	Braish et al., "Construction of the (1 $\alpha$ ,5 $\alpha$ ,6 $\alpha$ )-6-Amino-3-azabicyclo[3.1.0]hexane Ring System", <i>Synlett</i> , 1100-1102 (1996)
	C6	Chapple, "Muscarinic receptor antagonists in the treatment of overactive bladder", <i>Urology</i> , 55(Suppl. 5A):33-46 (2000)
	C7	Eglen et al., "Muscarinic receptor ligands and their therapeutic potential", <i>Current Opinion in Chemical Biology</i> , 3:426-432 (1999)
	C8	Eglen et al., "Therapeutic opportunities from muscarinic receptor research", <i>Trends in Pharmacological Sciences</i> , 22(8):409-414 (2001)
	C9	Felder et al., "Therapeutic Opportunities for Muscarinic Receptors in the Central Nervous System", <i>Journal of Medicinal Chemistry</i> , 43(23):4333-4353 (2000)
	C10	Grover et al., "Chiral Mandelic Acid Template Provides a Highly Practical Solution for (S)-Oxybutynin Synthesis", <i>Journal of Organic Chemistry</i> , 65:6283-6287 (2000)
	C11	Shacklett and Smith, "The Preparation of Substituted Benzoic Acids", <i>Journal of the American Chemical Society</i> , 75:2654-2657 (1953)
	C12	Sagara et al., "Cyclohexylmethylpiperidinyltriphenylpropioamide: A Selective Muscarinic M <sub>3</sub> Antagonist Discriminating against the Other Receptor Subtypes", <i>Journal of Medicinal Chemistry</i> , 45:984-987 (2002)
	C13	Nkpa and Chedekel, "Mechanistic Studies on the Addition of Cysteine to 3,4-Dihydroxyphenylalanine", <i>Journal of Organic Chemistry</i> , 46:213-215 (1981)
	C14	Kadin and Cannon, "Esters of N-Methyl-3-hydroxypiperidine Having Psychotomimetic Activity. II", <i>Journal of Organic Chemistry</i> , 27:240-245 (1962)
	C15	Broadley and Kelly, "Muscarinic Receptor Agonists and Antagonists", <i>Molecules</i> , 6:142-193 (2001)
	C16	Moriya et al., "Affinity Profiles of Various Muscarinic Antagonists for Cloned Human Muscarinic Acetylcholine Receptor (mAChR) Subtypes and mAChRs in Rat Heart and Submandibular Gland", <i>Life Sciences</i> , 64(25):2351-2358 (1999)
↓	C17	Kubo et al., "Cloning, sequencing and expression of complementary DNA encoding the muscarinic acetylcholine receptor", <i>Nature</i> , 323(2):411-416 (1986)

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/G.S./	C18	Bonner et al., "Identification of a Family of Muscarinic Acetylcholine Receptor Genes", <i>Science</i> , <u>237</u> :527-531 (1987)
↓	C19	Steers, "The future direction of neuro-urology drug research", <i>Current Opinion in CPNS Investigational Drugs</i> , <u>2</u> (3):268-282
↓	C20	Steers, Barrot, Wein, "Voiding dysfunction: diagnosis classification and management", In: <i>Adult and Pediatric Urology</i> , ed. Gillenwater, Grayhack, Howards, Duckett. Mosby, St. Louis, MO; 1220-1325, 3rd edition (1996)
↓	C21	Weinstock et al., "A General, One-Step Synthesis of $\alpha$ -keto Esters", <i>Synthetic Communications</i> , <u>11</u> (12):943-946 (1981)
↓	C22	Vogel's textbook, "Practical Organic Chemistry" 1046-1047 (5th Ed.)
↓	C23	"Design of prodrugs", ed. H. Bundgaard, Elsevier (1985)
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EXAMINER /Golam Shameem/	DATE CONSIDERED 02/02/2009
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